

Date: Thursday, 10/25/2007 10:05:26 AM
 User: Kim Johnston

Process Sheet

47

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : DUAL MIRROR ASSEMBLY
 Job Number : 35353
 Estimate Number : 12278
 P.O. Number : N/A Part Number : D206558043
 This Issue : 10/25/2007 S.O. No. : N/A Drawing Number : D206-558 PG4-6/D2066
 Prsht Rev. : NC Project Number : N/A
 First Issue : N/A Type : MACHINED PARTS Drawing Revision : C / B
 Previous Run : 31102 Material : N/A
 Due Date : 11/20/2007 Qty: 5 Um: Each
 Written By :
 Checked & Approved By : H 07 10 25
 Comment : Est. G02-09.19 Re-format; Incorporated D2066 KJ

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels per PPP D206-558-043 CHG005

2.0 D2011101 Mirror 6"



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
 Mirror 6"

Pick:

Qty Part Number Description Batch
 2 D2011-101 Mirror Ass'y 6"

B34886

mf

3.0 D2052 Bracket



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Bracket

Batch B17500

mf

4.0 D2054 Bushing - Delrin



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Bushing - Delrin

Batch B31219

mf

5.0 D2055 Clamp



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Clamp

Batch B28823

mf 07-11-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 10/25/2007 10:05:26 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL MIRROR ASSEMBLY

Job Number: 35353

Part Number: D206558043

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

D2056

Bell Crank Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)
Bell Crank Assembly
Batch B31220

MF

7.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)
Washer
Pick:

Qty Part Number Description Batch
4 AN960JD10 Washer M104625

MF

8.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Nut
Pick:
Qty Part Number Description Batch
2 MS21042L3 Nut M104625
or MS21042-3

MF

9.0

MS27039118

Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Screw
Pick:

X

Qty Part Number Description Batch
2 MS27039-1-18 Screw M12307 x 1mx, M106112 x 9mx

MF 07-11-15

10.0

M304TR0500W035

304 RD Tube .500 x .035W



Comment: Qty.: 2.8000 f(s)/Unit Total : 14.0002 f(s)
304 RD Tube .500 x .035W
304/316 SS Seamless Tube
(Ref. QSI 017 4.1.1.2) as per Dwg D2066 using punch Jig DT8012.
Identify as D2066.
Batch: M106015
Deburr and Polish
Note: Punch 1 end only at this time.

SP 07/11/14

(5)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 10/25/2007 10:05:26 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL MIRROR ASSEMBLY

Job Number: 35353

Part Number: D206558043

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Punch 1/2" OD x .035 " Wall

Slide on parts D2052, D2055, D2056, D2054 as per Dwg D206-558

Note orientation of belcrank and order of parts.

Punch other end to length (28.62") as per Dwg D2066

Use template DT8054

SB 07/11/14

(5)

12.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Flatten the ends on Hydraulic press using DT8545

Bend per Dwg D2066 using template D2066T1

Deburr

Drill 3/16" Dia holes per D2066T1 template and Dwg D2066

Deburr holes

Assemble remaining parts as per Dwg D206-558

mf

07-11-14

(5)

13.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07-11-15 (5)

14.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

15.0

D2053

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Bracket

Pick: Packing Kit

Qty Part Number Description Batch

1 D2053

Bracket

16710

1750

SD

16.0

D2067

Connector



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Connector

Pick: Packing Kit

131221, 20825
1321322

7-11-15 SD

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 10/25/2007 10:05:26 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL MIRROR ASSEMBLY

Job Number: 35353

Part Number: D206558043

Job Number:



Seq. #:

Machine Or Operation:

Description :

Qty Part Number Description Batch

1 D2067 Connector

17.0

D2071

Cable Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Cable Assembly

Pick: Packing Kit

Qty Part Number Description Batch

1 D2071 Cable

B31222

SP

18.0

AN34A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Bolt

Pick: Packing Kit

Qty Part Number Description Batch

4 AN3-4A Bolt

M103641

SP

19.0

AN5261032R9

Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Screw

Pick: Packing Kit

Qty Part Number Description Batch

4 AN526-1032R9 Screw

or AN526C1032R9

M101189

SP

20.0

AN960JD10L

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Washer

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10L Washer

M104344

SP

21.0

MS21919DG5

Clamp



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Clamp

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21919DG5Clamp

or MS21919WDG5

M11325

7-11-15 SP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 10/25/2007 10:05:26 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL MIRROR ASSEMBLY

Job Number: 35353

Part Number: D206558043

Job Number:



Seq. #:

Machine Or Operation:

Description :

22.0

MS354899

Grommet



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Grommet

Pick: Packing Kit

Qty Part Number Description Batch

1 MS35489-9 Grommet

M9619

11-11-15-SD

23.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

11-11-16 (5)

24.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

AS 07/11/16

25.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



11-11-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

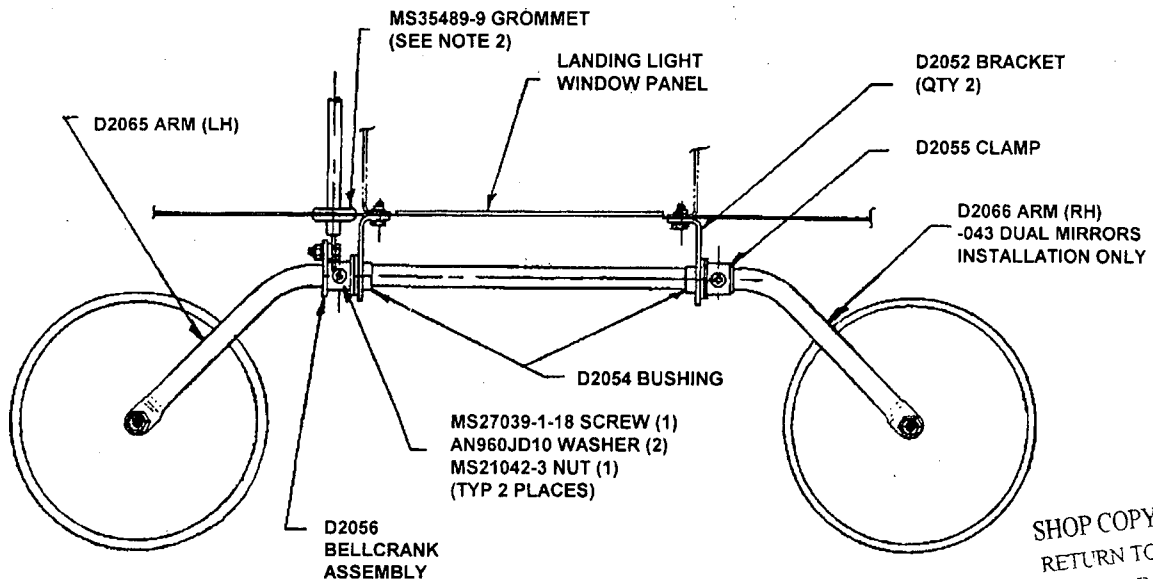
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

3.0 CARGO MIRROR INSTALLATION

Install the Cargo Mirror as follows:

1. Install D206-558-041/-043 cargo mirror assembly using AN3-4A bolts and AN960JD10L washers. Pickup existing anchor nuts in 4 places.
2. Install D2067 connector onto D2056 bellcrank assembly to locate hole for MS35489-9 grommet. With the mirror in the deployed position, mark and drill $\varnothing 0.125"$ (3.2mm) hole in landing light window panel where the grommet should be located. Open pilot hole to $\varnothing 0.563"$ (14.3mm). Install grommet.
3. Install D2053 bracket using AN526-1032R9 screws. Pickup on existing anchor nuts.
4. Position D2071 cable as shown. Install MS21919DG5 clamps using AN526-1032R9 screws where required. Pickup existing rivnuts or anchor nuts if available.
5. Install D2071 control cable using D2067 connector. Connector should rotate freely in bellcrank when MS21042-3 nut is torqued and cable clamped



**Figure 2: – View A: Looking Aft.
(D206-558-043 Mirror Shown)**

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 35353

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED
OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: C
Date: 01.10.03

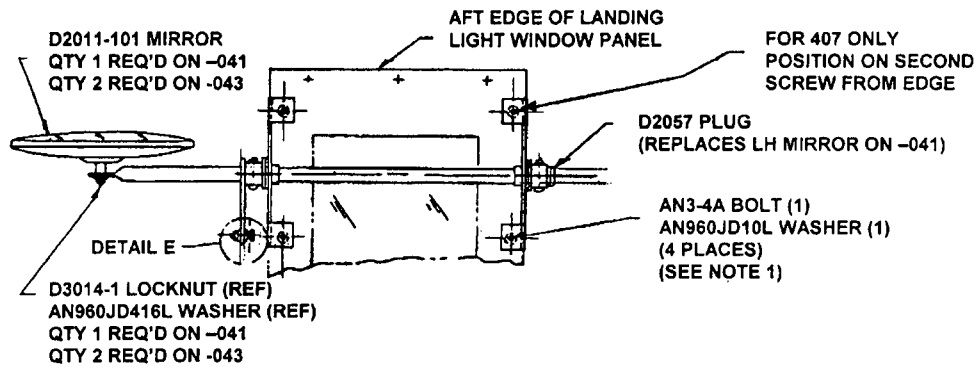


Figure 3: - View C: Looking Down on Mirror Installation
(D206-558-041 Mirror Shown)

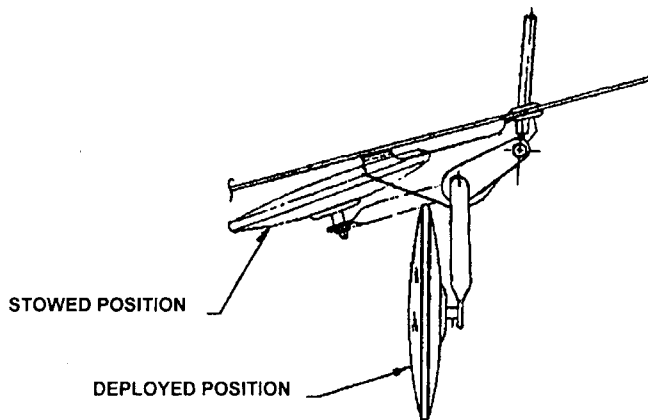


Figure 4: - Detail D: Looking from Side on Mirror Installation
(D206-558-041/-043 Mirror Shown)

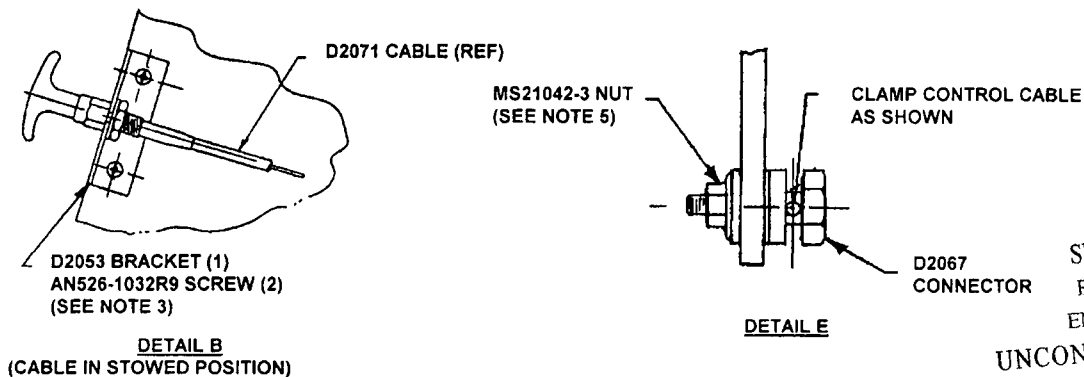


Figure 5: - Details B and E on Mirror Installation
(D206-558-041/-043 Mirror Shown)

4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041 Bell 206A/B/L/L1/L3/L4 Bell 407	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D206-558-043 Bell 206A/B/L/L1/L3/L4 Bell 407	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg

5.0 WEIGHT AND BALANCE

Qty -041	Qty -043	Part Number	Description
X		D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X	D206-558-043	DUAL CARGO MIRROR ASSEMBLY
1	2	D3014-1	* LOCKNUT
1	1	D2071	CABLE ASSEMBLY
2	2	D2054	BUSHING
1	1	D2067	CONNECTOR
	1	D2066	ARM
1		D2065	ARM
1		D2057	PLUG
1	1	D2056	BELLCRANK ASSEMBLY
1	1	D2055	CLAMP
1	1	D2053	BRACKET
2	2	D2052	BRACKET
1	2	D2011-101	MIRROR ASSEMBLY
4	4	AN3-4A	BOLT
4	4	AN526-1032R9	SCREW
1	2	AN960JD416L	* WASHER
4	4	AN960JD10	WASHER
6	6	AN960JD10L	WASHER
3	3	MS21042-3	NUT (or MS21042L3)
2	2	MS21919DG5	CLAMP
2	2	MS27039-1-18	SCREW
1	1	MS35489-9	GROMMET

* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

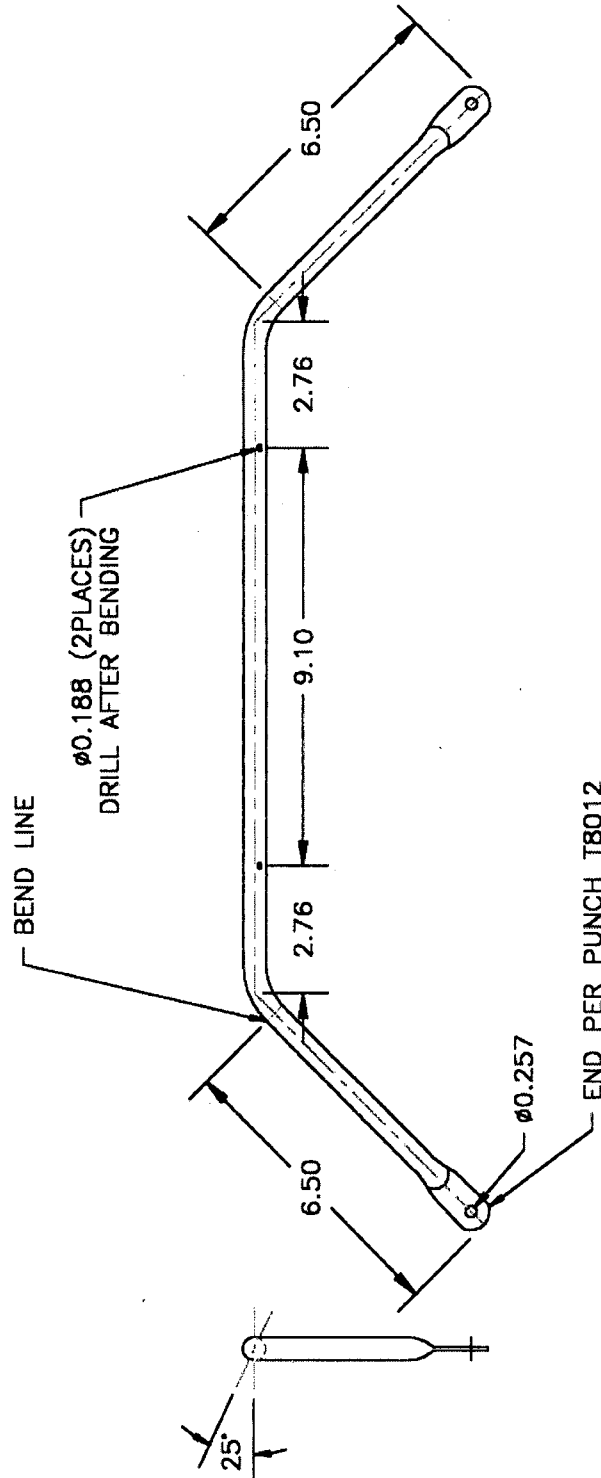
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 35353

• COPYRIGHT © 2001 BY DART AEROSPACE LTD. •
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED
OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: C
Date: 01.10.03



DESIGN	DRAWN BY	DART AEROSPACE LTD	
B WILLIAMS	B WILLIAMS	VICTORIA INTERNATIONAL AIRPORT, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
BW	GA	D2066	SHEET 1 OF 1
DATE	TITLE		SCALE
92.03.12	ARM		1:4
B	96.02.06	RE-DESIGNED	



D2066 CUT LENGTH 28.62
NOTE:
ADD D2052,D2055,D2056
D2054 TO ARM BEFORE
ENDS ARE PUNCHED AND
ARM IS BENT

MATERIAL: 304/316 SS 1/2 OD X 0.035 WALL

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 35353

Date: Thursday, 10/25/2007 10:05:26 AM
 User: Kim Johnston

Process Sheet

47

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: DUAL MIRROR ASSEMBLY
Job Number	: 35353		
Estimate Number	: 12278		
P.O. Number	:	Part Number	: D206558043
This Issue	: 10/25/2007 S.O. No. :	Drawing Number	: D206-558 PG4-6/D2066
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : MACHINED PARTS	Drawing Revision	: C / B
Previous Run	: 31102	Material	:
Written By	:	Due Date	: 11/20/2007 Qty: 5 Um: Each
Checked & Approved By	:		
Comment	: Est. G 02-09.19 Re-format; Incorporated D2066 KJ		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	DC	DOCUMENT CONTROL
-----	----	------------------



Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels per PPP D206-558-043 CHG005

07.10.29

2.0	D2011101	Mirror 6"
-----	----------	-----------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
 Mirror 6"

Pick:

Qty Part Number Description Batch

2 D2011-101 Mirror Ass'y 6"

3.0	D2052	Bracket
-----	-------	---------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Bracket

Batch

4.0	D2054	Bushing - Delrin
-----	-------	------------------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Bushing - Delrin

Batch

REFERENCE ONLY

5.0	D2055	Clamp
-----	-------	-------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Clamp

Batch

Date: Monday, 14/04/2008 9:14:53 AM
User: Linda Lacelle

Process Sheet

Customer	: CC-DAR01 Dart Aerospace Ltd.	Drawing Name	: TEST INSTALL REWORK
Job Number	: 38414		
Estimate Number	: 10804		
P.O. Number	:	Part Number	: D206558043
This Issue	: 14/04/2008	S.O. No.	:
Prsht Rev.	: NC	Drawing Number	: REWORK
First Issue	: 04/04/2008	Project Number	:
Previous Run	: 00015	Drawing Revision	:
		Material	:
Written By	:	Due Date	: 11/04/2008
Checked & Approved By	:	Qty:	1 Um: Each
Comment	:		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0

QC

QUALITY CONTROL



Comment: QUALITY CONTROL

Pull D206-558-043, and ~~D206~~ from stock:B 35353 Qty 3B 36575 Qty 1

B _____ Qty _____

4 total